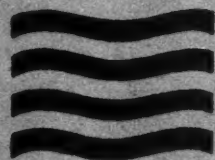


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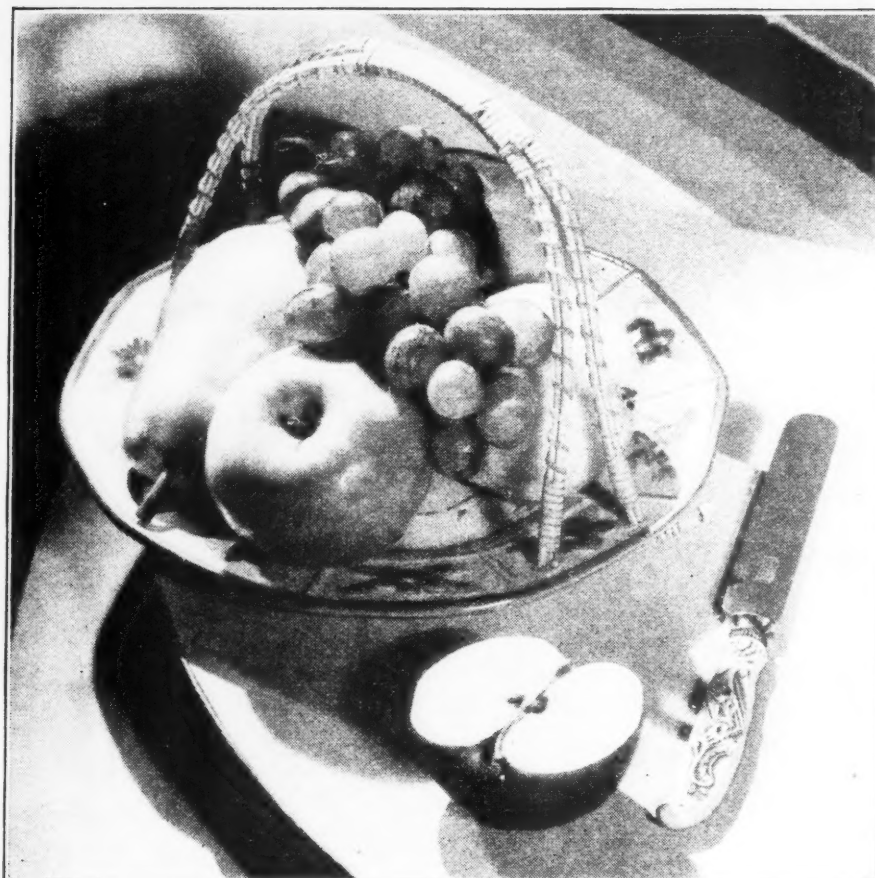
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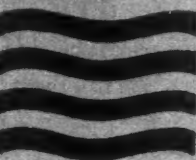


NOVEMBER

1933



THE WORLD'S LARGEST PRODUCE MART
SEARCHING FOR BETTER NUT TREES
DOES IT STILL PAY TO GROW FANCY APPLES?
AMERICAN FRUIT GROWER—GOLDEN JUBILEE



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me how I can get STARK'S GOL-
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W. E. BUSS

AMERICAN FRUIT GROWER

(Title Registered in U. S. Patent Office)

VOLUME 53 No. 7 NOVEMBER, 1933

CONTENTS

Over the Editor's Desk.....	4
The World's Largest Produce Mart.....	5
By FRED LARDNER	
A Pictorial Review of the Fruit World....	7
Search for the Best Northern Nut Trees Continues	8
By DR. L. H. MAC DANIELS	
Does It Still Pay to Grow Fancy Apples? 9	
By JOHN CHANDLER	
Some Trends in Orchardng—Part II....	10
By J. H. GOURLEY	
Nation-Wide Horticultural News.....	15
Join with the American Fruit Grower in Celebrating Golden Jubilee.....	16
By DEAN HALLIDAY	
State Horticultural News.....	17
Prize Title Picture Page.....	19
A Thanksgiving Recipe from MARY LEE ADAMS	21
Timely Hints for November.....	22

Name Your Fruit Farm

WHAT'S in a name? Well, repeat business and profits, if nothing else. We are speaking now of a trade name for the fruit you grow. Well-named fruit catches the fancy of the consumer, the man or woman who buys your fruit in the retail market place. If the fruit has quality, flavor and an alluring name—the memory of it will linger. And the next time the consumer is ready to buy again, the memory of it will prompt him or her to ask again for your particular brand by name.

In other lines, producers spend millions of dollars advertising trade named articles in order to prompt buyers to ask for them by name. This, in turn, spurs dealers to stock the named items in place of similar products whose names are not so well known. Bayer's aspirin is an outstanding example of this form of merchandising. You know yourself that you are reminded almost daily to "Ask for Bayer's aspirin."

Creating a trade name for your fruit, however, requires care and study. Name your farm and let the fruit products carry that name. Catchy names are usually harder to remember than a name that makes a picture of an alluring kind—an association with some pleasant memory. Consumer reaction to the trade name your fruit will bear also must be considered. Apples, for example, from "Stonybrook Farm" are apt to sound hard, unripe and unappetizing, whereas the same apples labelled from "Sunny Hills" will sound ripe, luscious and appetizing. Remember, too, that trick names or names that are hard to pronounce are also hard to remember.

Pick a good name and the prestige of your fruit products will improve, so will your sales—and so will your profits.

Give real thought to a name. If you get stumped, send us a brief description of your farm, or its location, and the AMERICAN FRUIT GROWER will be glad to give you a few suggestions.

E. G. K. Meister
Publisher

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Over the Editor's desk

Codes—NRA—AAA

THE Historian tells us that there have been four great trends or movements in the United States which have culminated in the present attempt to solve, temporarily at least, the situation which we call "the depression." Briefly stated these are: (1) The rise of industrial surpluses, (2) Agricultural dislocation, (3) Wealth dislocation, and (4) The rise of organization.

The first movement changed our country from an agricultural to an industrial nation, resulted in our tariffs, and the present overproduction of many industrial products. The second movement, consisting largely of the western march of agriculture, accompanied by Government subsidies to transcontinental railroads and their subsequent subsidizing of western agriculture, increasing farm acreage and production, brought on certain problems of farm surpluses much in evidence in 1872 and '73, but now with us again. In more recent years the railroads have removed through increased rates this subsidizing influence, which to a great extent is aggravating the farm situation today. The Grange and other farm organizations were organized in that first period of farm discontent.

The third movement began in the eighties, at which time we first heard of the cries of "tainted money," and in reaction, we had the introduction of socialism, the Single Tax Crusade, and the organization of numerous Utopian societies. The fourth trend, which culminates so forcefully in the governmental organizations of today, rose from the individuality of revolutionary times, when men cooperated in religion only; through the thirties, when organization was extended to philanthropy, until today when we organize for practically everything.

At present we are too "close" to the situation for a true picture of it. But we are attempting to bring about two great solutions: first, the equilibrium of production and consumption, and second, a redistribution of wealth. For the first time in history we have a national and constructive plan to solve the problems of surpluses. With such great aims of accomplishment, the NRA and AAA should receive our serious attention and support.

THE element of speed probably plays a greater part in fruit marketing than with any other commodity, agricultural or otherwise, unless it is that of certain vegetables. Fruit is classified as a perishable commodity and once it enters the marketing channels, in fact from the minute it is picked, it demands orderly and prompt handling in order that it reach the consumer in prime condition. Only under cold storage at controlled optimum temperatures are the ripening and deterioration processes arrested. It is fortunate that transportation and communication facilities have kept in pace with the greater demand placed on them by the supplies of fruit grown at greater distances from market and the consumers' need and desire for prompt and more frequent replenishment of the fruit he buys. For long distances, the railroads and steamship lines have decreased their running time, for shorter distances the trucks have lowered the time required to transport fruit between producer and consumer from days into a matter of hours. With highly perishable and valuable produce, the aeroplane has even entered the picture.

But in communication, the evolution has been even greater. No longer is most of our fruit sold as a result of correspondence. The telegraph and telephone have taken its place, especially the latter. From the farm-to-store sale, to the transcontinental purchase of many carloads, the two-way phone call is meeting the quick marketing demands of a perishable commodity. Situations involving changes in price and market supplies, sale misunderstandings, delays in transportation, and many other complications may often be completely straightened out by a telephone call, and in the aggregate resulting in a yearly saving to the growers and shippers of thousands of dollars. With no crop is timeliness and time saving more important than in the production and marketing of fruit.

1933—Problems—1934

PROBABLY no season has given the experimenter in the field of fruit growing more urgent problems to solve, and the materials used in spraying a greater test of efficiency, than has 1933. Already reports from our federal and state stations and hundreds of fruit growers give evidence of the fact that the 1934 spraying program will not follow the general recommendations given for this season. While not all the data has been submitted and weighed, it is evident that calcium arsenate will not be the insecticide which is to replace arsenate of lead, if it is to be replaced.

Another prediction, which is almost equally safe, concerns the matter of fruit washing. The grower must choose one side of the fence or the other with respect to spray residues. With a codling moth problem equal to that faced in many districts this year, the emphasis will probably be placed more on the control of this insect than in holding down the residue with the aim of avoiding its removal. There are two possible modifications to the present situation in this regard; the one, involving the finding of a better substitute for lead arsenate, and the other, a better washing solution than those now in use. Sane and scientific tolerance requirements may also be worked out for all types of insecticides, which will iron out to the satisfaction of all concerned the awkward situation now before us.

WITH the wind-up of the harvest season, fruit growers will again turn toward the problems of next season with the hope and determination to fight these old and new problems more successfully than ever before. They will have, of course, more and better weapons, as a result of our experiment station studies and the experiences of fellow growers. There is no better place to secure this new information than at the annual meeting of your state horticultural society. Attend your own state meeting, and if you can visit the one in another state as well, this will enlarge your educational assets even more. The investment will be returned to you many times in inspiration and satisfaction, if not in next year's profits.

J. T. Buegger



The Benton Harbor Cash Market at noon of a busy day. In the lanes buyers are conferring with growers. Notice that trucks are in rows of two, and that there is driving space between rows.

The World's Largest Produce Market

By FRED LARDNER

MODERN, scientific fruit marketing in rural areas within trucking distance of large cities, is probably no better exemplified than it is on the Benton Harbor Cash Market at Benton Harbor, Berrien County, Michigan, reputed to be the largest fruit and vegetable mart in the world. At this market growers from thirteen counties meet buyers from twenty-six states and transact their business in an orderly manner and without waste of time. There 6,000,000 packages of fruits and vegetables, 125,000 loads or 7,500 carloads, were sold this year for \$3,500,000. These fruits and vegetables were shipped by truck, water and rail, not only to large mid-western cities, but also to Florida, New England, the Dakotas, and many other points. "Picked today, on your table tomorrow" is a slogan well fitted for this industry. Consumers of southwestern Michigan fruits have little cause to complain, for the fruit is ripe, well washed, and properly graded. And because of rigid inspection there is scarcely a worm in a carload.

NOVEMBER, 1933

Location is perhaps the most important factor in the success of this mart. It is within reach of growers in a heavy fruit-producing region. Berrien County is the largest fruit-producing county in the country, with the exception of San Jacquin County of California, and there are several counties in the district not far below Berrien in production. The growers bring their produce to market in trucks, trailers, automobiles and even in baby carriages.

For forty years Benton Harbor has operated a mart for the benefit of growers and buyers, supposedly on a non-profit basis. Four years ago the city authorities realized that the old mart was too small and inadequate to accommodate the industry, which had grown tremendously. They invested \$50,000 in the purchase of 15 acres of land and the construction of three huge frame loading platforms, selling lanes, and buildings necessary to establish a new mart. The mart is now operated by a market master and a market board.

AMERICAN FRUIT GROWER

Its principal section, covering several acres, is centered between two loading docks, each 630 feet long and each with 60 stalls for season buyers, who do their business from these docks. The outside selling lanes are separated from the docks by forty feet of space. These forty-foot runways were planned to give the grower room in which to maneuver his approach to the docks after his load is sold. The grower unloads at the buyer's stall. The buyer backs his truck up to the outside of the dock, and since the docks are at truck level, the transfer of packages is quickly and easily accomplished. A third and smaller dock, lying at right angles to these two and some distance away, has been constructed to care for the overflow of day buyers, who also do business from the two main docks.

At the main entrance to the mart, near Bond and Ninth streets, the market master, James MacMillan, has his office. There is a gate on both sides of this office, through which the growers

Page 5

enter. A gateman interviews the growers at each gate, collecting a market fee of 10c from each one. If the seller has purchased his load, and wants to resell it, he is charged \$1. This heavier fee discourages reselling and tends to keep prices on a more uniform level.

The gatemen list the packages and varieties of fruits and vegetables of each load on stiff paper tickets, the stub of which is given the grower. The tickets are in booklets of 100, and each booklet goes to the city treasury after the stubs have been used.

There are 75 to 100 day buyers every day, and 75 to 100 season buyers constantly at the market. The market fee for day buyers is \$1. For season buyers it is \$50 for the season; \$40 for four months; \$30 for three months; and \$20 for two months. The season buyers are mostly commission merchants, chain groceries, and trucking firms. The buyers enter the mart at the opposite end, first visiting the buyers' booth to register, pay their fees and obtain tags for themselves and stickers for their cars. These tags and stickers must be conspicuously exhibited. The buyers' office keeps a card index file showing the name and address of each buyer and the date of each visit. Informative letters are sent to the buyers.

Though the growers may crowd the lanes, and perhaps have difficulty in obtaining their prices, they seldom have to exert themselves to promote sales. Seldom has a grower left the mart with his produce, providing it was in good condition. The best prices are obtained in the early part of the day. In early afternoon there may be a little haggling and as the afternoon wanes the prices become lower. Commission houses or chain groceries usually take anything unsold before the market closes at night.

While the mart is open from 8 A. M. until 9 P. M., each day from June 1 to November 10, it is under the NRA and no employee works longer than eight hours. It has twelve employees,

including three men, who alternate at night so that two are always on watch. Police protection is furnished by the city. The payroll is \$800 to \$1000 a month; the income \$30,000 to \$40,000 a year. The market must pay its own tax, water, light and insurance bills.

An inspector in the state department of agriculture and three assistants have an office near the mart, and are constantly inspecting the loads of fruits. Complaints by buyers on fruits or packing (the Michigan packing laws are stringent) must be made before the produce leaves the mart. The inspectors decide whether fruits are immature, overripe, improperly washed, or otherwise undesirable, and ban them if they are.

A traveling field laboratory of the state department of agriculture is stationed on the mart. If there is any doubt that the fruits and vegetables have been properly washed at home, or in the flood or brush machines at the commercial washing fruit exchange near the mart, a chemist tests the produce for spray residue. The Michigan tolerance is .01 grain of arsenic per pound of fruit; .02 grain of lead arsenate; and .01 grain of fluorine.

Forty percent of the produce sold consists of tree fruits, and of this amount 90% are apples, 6% peaches, and 4% pears. Thirty-five percent are grapes, and 25% small fruits and vegetables. Besides fruits and vegetables, chickens, dogs, pigs, hay, oats and corn were sold on the mart this year. Eighty-five percent of the produce is shipped by truck, 10% by water (Lake Michigan), and 5% by rail.

For informative purposes, market receipts in fruits, vegetables and packages are tabulated each day in the rear

of the market master's office. For September 27, 1933, the receipts were: apples—9687; honey—60; strawberries—2; lima beans (pod)—45; lima beans (shell)—12; quinces—164; squash—37; grapes (12-quart)—57,434; grapes (4-quart)—18,389; celery—4235; watermelons—23 melons; cantaloupe—43 packs; peaches—132; cabbages—283; pears—1856; plums—188; beans—68; cucumbers—275; carrots—21; egg plant—16; onions—860; peppers—103; potatoes—375; tomatoes—1436; a total of some 95,000 packages. On Sunday, October 1, the second largest day on the mart, 125,826 packages were sold.

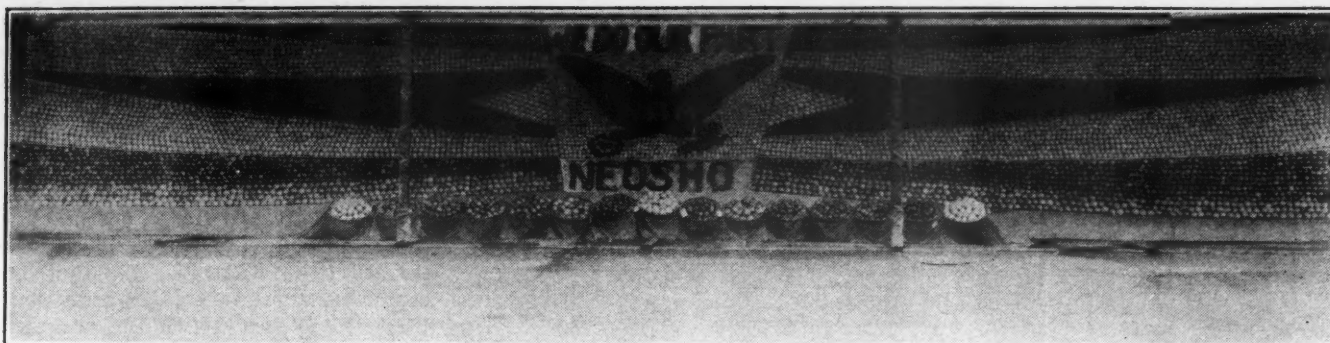
The city of Benton Harbor, realizing that the fruit industry, through the establishment of package, can and trailer factories and canning industries, has materially contributed to its growth, is constantly on the alert to advertise this great fruit region. The most successful advertising feat is its annual Blossom Festival, held during blossom time. This festival attracts thousands of visitors, who flock to the city to see the gigantic blossom parade, featuring the blossom queen and her court of honor. After the parade the queen and her retinue are booked to appear in Michigan and Chicago theatres. Millions of newspaper words and thousands of feet of movie news-reels have resulted from these festivals.

While the Benton Harbor Cash Market is obviously a boon to the city and the buyers, not a few growers find fault with it. Some object to the fact that it is a fee mart, and advocate a free mart. They object also because there isn't a single fruit-grower on the market board, which consists of a banker, a druggist, a real-estate man, a radio dealer, and an automobile dealer. They claim that Benton Harbor does make a substantial profit on the mart. Other growers claim that there would be inadequate management on a free mart, that a successful mart must have

(Continued on page 22)

This picture shows two main docks, with portion of third dock to rear of dock on left. Market master's office in right foreground; gate on left of office. Lanes indicated. Buyers' stalls indicated by name. Notice gateman with package of tickets for growers, who enter this and similar gate to right of office.





An exhibit of apples, designed by Mr. Weston of the Neosho Nurseries, and displayed at the Neosho Harvest Show in Missouri. This is reputed to have been one of the largest and finest exhibits of fruit ever made in the Middlewest



Apple bobbing in the Redwood Empire's famed Russian River marked the close of the Gravenstein apple picking season at Sebastopol, Calif.



Part of the 1500 fruit growers who attended Senator Harry F. Byrd's orchard picnic at his Rosemont Orchard near Berryville, Virginia



Auction display on pier 21, New York City, showing deciduous fruit on the left and citrus fruit on the right, displayed for buyers' inspection. (Story of the fruit auctions to appear in December issue)

Courtesy Erie Railroad

A PICTORIAL REVIEW OF THE FRUIT WORLD

On this page are four interesting photographic glimpses of events and things of interest to every fruit grower and his family. Since this Pictorial Review of the Fruit World will be a regular feature of each issue of the AMERICAN FRUIT GROWER, we invite you

to send us photographs or snapshots of horticultural events in your neighborhood. Keep your camera handy. The AMERICAN FRUIT GROWER will pay \$1.00 for each photograph accepted for publication on this page.



Courtesy Dept. of Pomology, Cornell Univ.

Thomas Black Walnut—This is one of the best varieties for northern planting according to tests at Ithaca, N. Y. (Cornell Bul. 573.)

Search for the Best Northern Nut Trees Continues

By DR. L. H. MAC DANIELS

Cornell University

WITH the first sharp frosts of autumn, many of us go out into the fields after nuts, or possibly go hunting, with the gathering of nuts as a secondary purpose. In these rambles it should be borne in mind that a real service can be given to northern horticulture if a sharp lookout is kept for superior varieties of black walnuts, hickory nuts, butternuts, hazel nuts, and any other sorts that may be suitable for northern planting. Many of the excellent trees which once stood in the fields and forests have already been destroyed in the march of the years and are gone forever. There are, however, many trees bearing nuts of superior quality that are still standing in out-of-the-way places, on farms and in dooryards, that may well merit propagation or at least testing to determine their value.

During the past few years, an attempt has been made to locate these superior trees, test the nuts to determine their value, and propagate the best sorts to preserve the variety for further testing. Some of these have already been given varietal names. In this movement the Northern Nut Growers' Association and various departments of Pomology and Horticulture at the State Experiment Stations have been cooperating. Among the latter, the department at Michigan has given the matter most attention and the departments at Ill., Ohio, and New York have also shown some activity.

Samples of nuts for testing may be sent to the Secretary of the Northern Nut Growers' Association, Mr. G. L.

Slate at the New York Experiment Station, or to the experiment stations above named. A good sample for testing should consist of at least two dozen shucked nuts which have been carefully dried. A nut, to be worthy of propagation, must show not only superior size, but most important of all, good cracking quality. In cracking nuts for test, hickory nuts are usually cracked on the side and black walnuts by pressure from the ends.

NORTHWEST FEATURES NUT INDUSTRY

By C. M. Littelljohn

THE vast acreage of filbert orchards with recent new plantings, now covering an extensive area of Southwest Washington and Oregon, was inspected in September by a group of nut-tree specialists and government officials, who conferred with the nut growers of the district. This annual Filbert Tour was sponsored by the members of the Washington Filbert Growers and the Lewis County Co-operative. The visitors were much impressed with the extensive new orchards in this section, which will soon supply the domestic markets with a larger share of their demands for these nuts.

Nut growing progress in the Pacific Northwest was eloquently expressed this fall at the West Washington Fair in Puyallup, Washington, as well as at various regional fairs. A notable exhibit of filberts of the Western Washington and Oregon regions was the

cynosure of many eyes. New interest was awakened in the rapidly expanding walnut and filbert industry of this region, becoming noted for its Franquettes, no less than for its Barcelona, Du Chilly, and Brixnut filberts, through several associations of mutual benefit adapted to furthering production and marketing. Furthermore, better prices are to be realized from the crops this year as the NRA army continues its onward march and progress. The nut displays revealed hidden wealth and possibilities of this comparatively new country and showed in many instances how men have made profitable hobbies of growing nuts.

HULLING WALNUTS

HULLING black walnuts need not be a disagreeable or tedious task, says Thomas W. Skuce, extension forester of the College of Agriculture, West Virginia University, who has just issued a leaflet on "Black Walnut Kernels as a Source of Farm Income." In it he describes several practical methods of hulling, as well as giving information on curing, cracking, shipping, and marketing.

With a short crop this year, good prices are predicted for the meats and he advises those who have nuts to make an effort to save and market them as an additional source of farm income. The nuts should be gathered as soon as mature and hulled promptly before the hulls darken.

A hulling device made by one farmer consists of a trough just wide enough to fit over the rear wheel of his automobile. The sides are about six inches high and lined with quarter-round strips in such a way as to force the nuts to the center. The trough is closed at the front end and open at the rear.

In using this device, one rear wheel of the car is jacked up and the trough fitted under it with the front end raised just enough to let the nuts feed readily. With the motor running slowly and the car in gear, the nuts are then fed into the trough just in front of the revolving wheel. Letting some of the air out of the tire will help the device do better work.

The nuts and hulls are shoveled from the back end of the trough and passed over a screen of poultry wire with mesh just large enough to allow the nuts to drop through while the hulls are scraped off at the lower end of the screen. This outfit will hull about ten bushels of nuts an hour.

Scrubbing or washing the freshly hulled nuts by stirring them around in a tub of water not only improves their appearance but makes it easier to keep the kernels clean when cracking them out.

Does It Still Pay to Grow Fancy Apples?

By JOHN CHANDLER

As an annual producer of some 30,000 bushels of apples, as well as a past and present officer of many fruit growers' organizations, including the Nashoba Fruit Producers' Ass'n, John Chandler is exceptionally well qualified to raise and answer the many questions facing fruit growers today. Mr. Chandler was graduated from Yale in 1912, but immediately afterwards became interested in horticulture by buying a 300 acre dairy farm and planting it to apple trees



IN these trying times of low returns for apples, we growers find it difficult to plan for the future. On the one hand, we are fortunate if apples sent to market return the cost of production. This means that there is little money for labor, fertilizers and spray materials to care properly for the orchard the next season and even less incentive to continue striving to produce quality fruit. On the other hand, we hope and expect that the clouds of low prices will some day roll away, and that our orchards, on which we have lavished all of our savings and credit, the hopes of future independence, in fact our entire lives, will again pay.

If we turn to the existing government agencies for advice in our dilemma, we run up against contradictory opinions. On one side the agents of the extension service, foreseeing starved orchards and crops ruined by insects and disease, advise a complete program of pruning, fertilizing and spraying. On the other side, the farm economist points out with equal earnestness that the extra bushels of apples made possible by additional fertilization will not return the cost of that fertilizer at prevailing prices. In fact he suggests letting the orchards go with little expense or attention, pointing out that since apples will barely return costs, it is better to let the orchards slide and hang on to what little cash or credit we have left, if any.

Our perplexity, therefore, is very real and very vital. More particularly so, because these two schools of trained scientists are both sincere in their be-

liefs and in their desire to help us. And so the problem comes back to us unsolved and we, the growers, must decide our course of action for ourselves, using our own judgment in the final decision. Furthermore, the correct course of action is not going to be the same for all growers. In the final analysis the decision rests with each individual grower. It is with the idea of helping the individual to arrive at the correct solution of his problem that I set down the following observations.

There seems to me to be one vital question which each grower must decide for himself first. That is whether or not the game is worth the candle, whether or not to go on with the enterprise. This will depend on any number of factors, many of them personal and having little to do with the technical problems of fruit growing. For instance, if fruit growing has proved consistently unprofitable for any individual, the question then comes: "What else can he do?" Other problems arise pertaining to other types of farming, or alternate occupations which are not within the scope of this paper. The answers in many cases may hinge on the possibility of securing further credit. If the government, with its present liberal policy toward agricultural loans, is unable to extend further credit to the individual fruit grower and no other source of credit is available, then this question will be automatically answered for the individual, for the production of apples is a type of business in which the use of capital is essential. However, once the decision is

made to proceed as best one can, we must then decide how much care we can afford to give to the orchard to produce the largest net profit, or the smallest net loss.

The first problem which presents itself is that of pruning. How much can we afford to prune in view of the low prices we are now receiving for apples? If the grower has revenue-returning work, pruning can probably be cut or skimped better than any other detail in the production of a crop of fruit. However, since usually there is no other work in the winter, it is better to keep apple trees open if possible. It makes spraying much more effective and saves material. It cuts down the number of low-grade, unprofitable apples which must be handled in the rush season of harvesting, even though it may not increase the volume of fancy fruit, and finally, annual pruning is vital to the continuance of annual crops on annual bearing varieties.

The next item of expense is for fertilizers. Here the economist tells us that at present prices the margin of profit is so small that the larger crop may not pay for the fertilizer to produce it. If we stop right there, they are correct. But having decided to stay in the business we have other factors to consider. The effect on the crop of lack of nitrogen is not great, but the trees themselves may become so devitalized that several crops may be affected, and devitalized trees are prone to be victims of disease and drought. The cost of fertilizers does not run over two or

(Continued on next page)

Some Trends in Orcharding

By J. H. GOURLEY

Part II

THE pendulum of opinion has swung back and forth in regard to the value of bees in the orchard. Some excellent growers "pooh poohed" the idea of bees being a necessity, citing years when there was no period of any considerable length when bees could fly and yet big crops were obtained. In the face of this paradoxical situation we know that if apple clusters are covered with a bag, little or no fruit sets. This season of 1933 showed more conclusively than the writer has seen before the need of bees if good sets of fruit were to be realized. Not only were bees necessary but suitable varieties were necessary for cross pollination. It is beside the point to say that there are enough wild bees to effect pollination in orchards. Certainly there are places where that is true, but if they are not sufficient then the placing of colonies of bees in the orchard at blossom time must become a regular horticultural practice.

But our conception has broadened and the emphasis has shifted somewhat in recent years as we have learned that not only must there be proper cross pollination but the vigor or nutritional condition of the trees must be right. A "snowball bloom" such as was experienced throughout the East this year is likely to result in a poor set and this situation is greatly increased if the trees are low in vitality. Poor setting varieties should be pruned more than others and fertilized early in the spring or else in the autumn.

Spraying

Here we have the War Department of Horticulture! It is more difficult to reach an agreement in this matter than in any other among orchard practices. Of course, new materials are coming on the market and the personal element in spraying is so great that it is little wonder the experiences of no two seasons are alike.

The trend, however, is definitely toward more dilute sprays, particularly for the cover or summer sprays and the use of more material in order to insure thorough coverage. It is somewhat of a question whether any of the newer sprays will permanently replace liquid and dry lime-sulfur and Bordeaux mixture, economy and efficiency considered. The use of additional lime to



As Chief in Horticulture at the New Hampshire and West Virginia Experiment Stations, and for more than 12 years at Ohio, J. H. Gourley is exceptionally well qualified to write upon the subject of trends in apple growing. In addition to his scientific experience in both field and laboratory, Dr. Gourley is well known as an author of fruit text books

reduce burning from arsenicals and from the caustic lime-sulfur is also an important advance in spraying. Great as the opposition is in some quarters to the above program, the writer is convinced that these proposals have done more to change actual spray practice in Ohio and in some other states than any innovation during the past ten years. More is going to be done along these lines.

Water

Water is taken for granted, like the air we breathe. Yet the greatest single need of all phases of horticulture in Eastern United States is a provision for irrigation during dry seasons and probably at some time during every season. Irrigation of orchards has proven successful beyond anyone's expectations under Eastern conditions. The condition of trees immediately improved, size of fruit was greatly affected, and color increased to a marked extent. There have been frequent deaths of trees during the past three years coin-

cident with the drought period. It is entirely likely that shallow rooted trees on land with a poor type of subsoil is largely responsible. Irrigation and tile drainage should help materially to reduce this loss.

Cooperative Organizations

I do not know that there has been any great trend toward extending cooperative organizations in the East. As Professor Powell once said, the history of cooperative efforts is strewn with wreckage. Yet, with the probability of spray residue removal and other practices requiring expensive machinery, I would expect a revival of effort at community processing and packing of fruit. Necessity may force it and such a move may be a wholesome and helpful one.

By way of summary I would say the outlook is good, the trends are all improvements over the past, and those who do not take part in these advanced movements are likely to see the procession of progress go by.

Growing Fancy Apples?

(Continued from preceding page)

three cents a bushel. It may well be that the three cents per bushel for fertilizer will cause sufficient extra size in the apples to more than offset its cost. At any rate it will continue the vigor of the trees, giving us assurance of the safety of our investment.

How much spraying can we afford to do? Back in the good old days when banks were banks and apples had value, there was a spread of at least twenty-five cents between a bushel of "Fancy" apples and "No. 1's," let us say, or, to make it more universal, between any two grades of apples. Our figures in Worcester County, Massachusetts, show that the average cost of a complete spray program, labor, material, etc., amounts to about ten cents per bushel, per season. Under present conditions it may not be possible to see even a ten-cent spread between grades but we do know that the better apples, whether you call them Fancy or not, are often the only ones which will pay transportation to market. If a complete spray program costs only about ten cents a bushel, and if the better apples are the only ones which we can afford to ship, are we justified in skimping on spraying? The answer is emphatically "No!" Not only does it still pay to grow Fancy apples, but quality fruit is perhaps the only fruit that it does pay to grow at the present time. Perhaps in some happy future, when any old apple will bring a price in the market, clever growers will cut out spraying and simply cash in on the fruit that grows naturally on their trees, as our forefathers did before us, but that time is not now.

GROWERS AND ENTOMOLOGISTS ARE AGREED !!

The VERDICT

in the case of Arsenate of Calcium } vs. { Arsenate of Lead

in the control of Codling Moth
is presented here for your information

On April 2, 1932, the Department of Agriculture established a lead tolerance of .014 grain of lead per pound of fruit and a tolerance of .01 grain of arsenic trioxide per pound of fruit. Later that tolerance was raised to .02 grain for lead, while the arsenic trioxide tolerance remained the same.

In an effort to meet this tightened tolerance, many growers used Arsenate of Calcium as a substitute for Arsenate of Lead in the hope of being able to control the late-brood codling moth. The results were generally unsatisfac-

tory, and many of the growers who followed this course are determined to change to Arsenate of Lead next season and wash their fruit.

Several leading entomologists made exhaustive tests using both Arsenate of Calcium and Arsenate of Lead, and their findings are reproduced below. Note their concurrence of opinion that Arsenate of Calcium is inferior to Arsenate of Lead in the control of codling moth, and that it is also an unsafe spray on account of foliage injury.



READ WHAT LEADING ENTOMOLOGISTS SAY:

W. P. FLINT—Chief Entomologist, Illinois Agricultural Experiment Station

"I think the growers in Illinois are of the same opinion as those of Michigan—that they will not use calcium arsenate again for codling moth control. We certainly will not recommend the material next year. Burning was so bad that there will be no question about using it another year. It certainly cannot be depended upon as a non-burning, non-injurious spray material. . . ."



J. J. DAVIS—Chief Entomologist, Purdue University Agricultural Experiment Station

"From our own experience and observations in the State, we are in no better position to recommend Calcium Arsenate next year than we were last spring. I am inclined to believe that a large number of our growers will use lead in 1934 and purchase washers to remove the residue."

W. S. HOUGH—Entomologist, Virginia Agricultural Experiment Station

"Calcium arsenate ran according to our previous experience with this material. . . . We have large blocks of trees in some orchards that have lost all their leaves where calcium arsenate was used alone. . . . Our laboratory tests show that calcium arsenate is not as effective as lead arsenate against young codling moth larvae. The increase varies from 15% to more than 100%, according to tests run here this summer."

P. J. PARROTT—Chief in Research, Bureau of Entomology, New York State Agricultural Experiment Station

"... In Western New York . . . the codling

moth has taken a terrific toll, and those growers who have followed a heavy spray program with lead arsenate or with lead arsenate and oil are very much superior to those neighbors who carried on a less expensive spray program . . . the fruit when harvested will unquestionably bring out the fact that three, four, and five cover sprays with calcium arsenate has not given the control secured with lead arsenate."

W. S. PERRINE—Perrine Brothers, Growers of Centralia, Illinois

"Growers who used calcium arsenate as a rule got very poor worm control and where used throughout the season, the trees were as a rule defoliated. We plan now to go back to arsenate of lead and equip to wash."

THOMAS S. SMITH—Thomas S. Smith & Company, Chicago, Illinois

"Losses from worm damage on our orchards where arsenate of calcium was used cost us thousands of dollars, and we have decided definitely to spray with arsenate of lead next year and wash our apples."

SHERWIN-WILLIAMS

SPRAY AND DUST MATERIALS

HERE ARE THE FACTS O



EXCERPT FROM ARTICLE IN MIDWESTERN FARM PAPER:

Calcium Arsenate Not Favored

As we watch the apples go through the grader at a cooperative packing house and as we broach the subject to growers it becomes apparent that calcium arsenate is far inferior to lead arsenate for the control of codling moth. Many apple growers used the calcium arsenate this season in an attempt to avoid a collision with the lead residue restrictions imposed by the U. S. pure food and drug administration. Many of those who used it now heartily condemn it. A few growers seemed to have had good results with it, but in those cases there was evidently a small moth population in the orchard at the beginning of the season and they are probably going into the winter with a larger moth population than was the case last year.


THE SHERWIN-WILLIAMS Co.
101 PROSPECT AVE. N.W.
CLEVELAND, OHIO.

A Statement to the Commercial Apple Growers of America

Apple growers thruout this country have practically completed packing their 1933 crop, which, according to the official government estimate issued Oct. 1, 1933, is 27,571,000 barrels compared with an actual production of 28,645,000 barrels for 1932.

Not only will the actual commercial production of apples be less this year than last, but the percentage of high-grade fruit will show a very marked reduction.

While it is true that factors including poor set following a "snow-ball bloom," wind and drought, have been responsible for the reduction in actual barrels or bushels, the principal factors responsible for the low percentage of quality fruit have been:

SCAB LATE-BROOD CODLING MOTH SPRAY INJURY

(From Lime-Sulfur Solution and Arsenate of Calcium)

Scab fungus developed under the exceptional wet, cool weather conditions of early spring and particularly in orchards that were not frequently or thoroughly sprayed.

Following scab infection to the fruit and leaves of apple trees, russetting of the apples and injury to the foliage resulted from the use of Lime-Sulfur Solution. Then, after midsummer, orchards that were sprayed with Arsenate of Calcium as a substitute for Arsenate of Lead in an effort to meet the tolerance on lead residue, began to develop serious foliage injury and a serious infestation of late worms.

All of these factors combined lowered materially the production of A-Grade apples in hundreds of fine apple orchards thruout this country.

Similar losses caused by scab, "worms" and spray injury can be averted in 1934 if you will follow our recommendations.

THE SHERWIN-WILLIAMS Co.,
Insecticide Department.

SHERWIN-WILLIAMS

MONEY-SAVING QUALITY

OF THE CASE—Read Them

What 1933 Taught Us!

1933 was a discouraging season for apple growers . . . everyone in the business of growing and marketing has been affected. But certain lessons have been learned that should enable orchardists to grow a higher

percentage of A-grade fruit in 1934. To those growers who study their orchards and their crops, and who are guided by the latest and most dependable information available, these facts are evident:

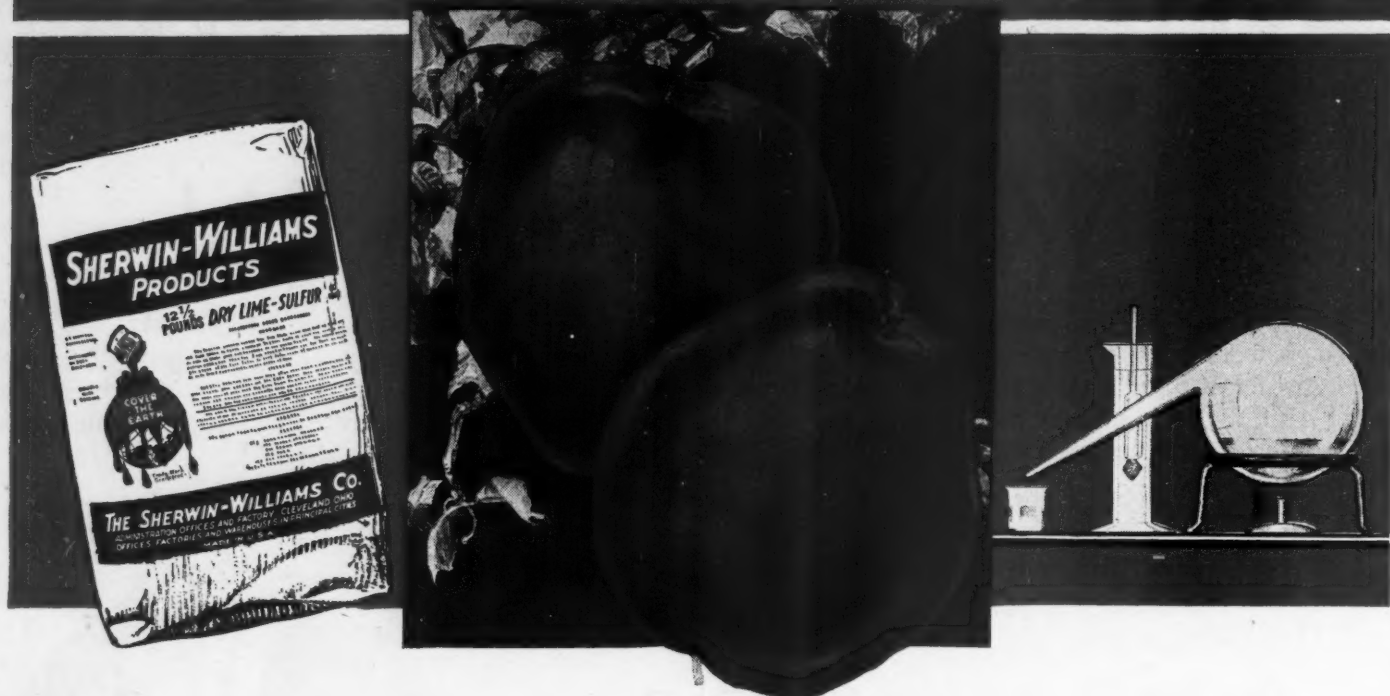
1. That frequent and thorough spraying is necessary to control apple scab.
2. That Dry Lime Sulfur will control apple scab effectively **WITHOUT RUSSETING THE FRUIT OR "BURNING" THE FOLIAGE.**
3. That apples sprayed with Dry Lime Sulfur develop a higher color and finish than those sprayed with Liquid Lime-Sulfur.
4. That Arsenate of Calcium is not an effective spray to use in the control of codling moth.
5. That Arsenate of Calcium caused serious foliage injury.
6. That Arsenate of Lead is still the best insecticide to use to control codling moth.
7. That apple growers should use Arsenate of Lead in 1934 and wash their fruit to meet the official tolerance for both lead and arsenic.



SHERWIN-WILLIAMS

SPRAY AND DUST MATERIALS

FOR BETTER FRUIT IN 1934



For fine color and waxy finish—
for freedom from costly russet and "burned"
foliage—spray with **S-W DRY LIME SULFUR**

SPRAY WITH
S-W
ARSENATE OF
LEAD IN 1934
AND WASH

The original Dry Lime
Sulfur U. S. Patent
No. 1,264,908, Jan. 29,
1918. Reissue patent
No. 14,890, June 22,
1920.



Trade-Mark Registered

There is a formula that will produce fine color and waxy finish . . . that will not russet your apples . . . that will not "burn" the leaves of your trees or cause defoliation.

That formula is Sherwin-Williams Dry Lime Sulfur, chemically pure 33° liquid lime sulfur STABILIZED by a patented process so that it does not injure fruit or foliage.

Comes packed in convenient 12½-pound paper bags—packed 8 and 16 to the drum. It does not deteriorate. Use S-W Dry Lime Sulfur next spring for the control of San Jose Scale, Peach Leaf Curl and Apple Scab.

Write today for a copy of our booklet entitled: "FINE COLOR AND SMOOTH FINISH." THE SHERWIN-WILLIAMS CO., Insecticide Department, 101 Prospect Ave., N. W., Cleveland, Ohio.

SHERWIN-WILLIAMS

The World's Largest and Most Complete Line of Insecticides and Fungicides

NATIONWIDE HORTICULTURAL NEWS

Secretary of Agriculture, Henry A. Wallace, recently approved a marketing agreement covering the Northwest tree fruit industry, effective at 12.01 a. m. October 14. This agreement regulates the marketing of apples, pears, peaches, cherries, fresh prunes and other fruits in Washington, Oregon, Idaho and Montana.

The first Apple Blossom Festival ever to be staged in Canada was held this year to commemorate three centuries of apple growing in the Annapolis Valley of Nova Scotia. Pierre Martin is related to have planted some small apple trees at Belleisle (now Granville) which he brought from Normandy in 1633. This is the first recorded planting of apples on the continent of North America.

A fruit marketing code for the citrus fruit industry was presented to the Secretary of Agriculture in Washington, D. C., early in September. The shippers of citrus fruit from California, Arizona, Texas, and Florida who presented this plan have agreed on a national proration respecting their several states. It is not known when the plan will go into effect, but it is hoped that it will be in operation in time to catch the start of the Navel orange crop.

After January 1, 1934, the \$1.50 per cwt freight rate will again be resumed on apple shipments from the Pacific Coast to points east of Chicago, unless eastern lines concur in the recent action of the western transcontinental railroads agreeing to make the \$1.25 rate permanent. Another hearing will be given the question by the eastern roads on November 7. In the meantime, the Interstate Commerce Commission has before it the case calling for a \$1.00 per cwt rate on this commodity.

The official government crop report for October forecasts an additional reduction in the 1933 commercial apple crop. The estimate figures now show this year's crop more than a million barrels or four per cent under the 1932 measured crop; and 15 per cent under the five-year average.

One of the most interesting features of recent Wisconsin State Horticultural Society meetings, and which will be continued this year, is a "Seedling Apple and Nut Show." It is open to everyone and encourages the search for worthwhile seedlings, which in the past has resulted in the finding of such val-

uable apple varieties as Delicious, Stayman Winesap, and many others.

Within five years, pear production is expected to exceed apple production in the Hood River Valley of Oregon. This premier apple producing section of the Northwest has for many years been showing large decreases in apple production and corresponding increases in pear production. The entire district will produce slightly more than a million boxes of apples this year. The removal of various odd varieties and heavy blocks of Spitzenbergs which had become infected with anthracnose, together with damage caused by several severe winters, accounts for most of the apple acreage reduction. Yellow Newtown, the leading variety, continues to rate about 55% of the total, while Spitzenbergs have dropped from 25% to 16% in the last ten years, though still maintaining second place. Ortleys, Delicious, and Arkansas Black follow in the order named.

Nearly 90% of the national sour cherry pack is produced in Michigan, New York, Wisconsin, Pennsylvania, Ohio, and Colorado. Michigan State College workers have studied the commercial orchards of Michigan to determine the "Trends in Cherry Production in Michigan" and have now issued a Special Bulletin No. 237 under that title.

The annual three-day meeting of the Northwest Horticulturists, Entomologists and Plant Pathologists, was held at Hood River, Oregon, during the last of July. F. A. Motz, Foreign Fruit Specialist of Federal Bureau Markets, was the main outside speaker. Yakima was chosen for the location of the next year's meeting and Dr. R. L. Webster, Washington State College, elected as the new president.

It is estimated that between 1,800 and 2,200 cars of apples were not shipped out of the Northwest this spring due to high freight rates, economic conditions, and various other reasons. Had the freight rates been reduced at the start of the season, it is believed that some 2,000 cars that were not shipped, would have moved. On February 11th, the freight rate on apples was reduced 16 $\frac{2}{3}$ per cent. For many years the industry in its effort to reduce freight rates has contended that any reduction granted would revert back to the industry, a fact which was clearly demonstrated this season.

Canada has what is probably the largest apple crop in its history this year, with a commercial production of about four and a half million barrels. Their previous record crop was in 1921, when 4,187,000 barrels were produced. Nova Scotia is credited with about half of the 1933 crop.

Andrew A. Quarnberg, well known as the father of the filbert industry in America, died August 21 at the age of 84. Mr. Quarnberg was born in Sweden, immigrated to Dakota, and finally settled in Clark County, Washington, in 1891. His nut orchard near Vancouver is stated to be the world's largest experimental planting of filberts, while Mr. Quarnberg was recognized as the leading authority on filbert varieties and culture in this country.

The Virginia Division of Markets this season is charging 50 cents per sample to analyze apples for lead and arsenic spray residues. Heretofore the analysis has been free to producers and shippers, the expense being borne by the State Department of Agriculture and Horticultural Society.

The 1933 crop of grapes in the Ozark district of northwest Arkansas and southwest Missouri was about 500 carloads, which is more than twice the 1932 production.

The Bartlett pear crop of the Rogue River Valley will approximate 750 cars this season, of which about one-third will go to canneries, 15% for export, and almost half for domestic shipments.

A recent cut in the French quota on apples and pears will seriously affect American exporters. It is announced that the French Minister of Agriculture has limited total imports of apples and pears to 120,000 quintals or approximately 13,250 tons for the last three months of 1933. During the same period last year 34,000 tons were allowed entry.

The U. S. cranberry crop is estimated at 573,000 barrels as compared with 535,000 barrels harvested last year and 579,000 barrels for the five-year average between 1926 and 1930.

Yuma Valley, the center of the pecan industry in the Southwest, celebrated its annual Pecan Day recently. The crop is estimated at about 40 tons of nuts this year.

For 50 years the American
Fruit Grower has been, and
is, the only national fruit
magazine

Join with the American Fruit Grower in Celebrating Golden Jubilee

By DEAN HALLIDAY

WHEN a publication, like a person, has kept faith with itself and its friends for a period of fifty years, it is entitled by age-old tradition to celebrate. Next spring the AMERICAN FRUIT GROWER will be 50 years old, or rather in view of the AMERICAN FRUIT GROWER's new program, let us say, 50 years young—and so we are going to celebrate.

Since 1934 will be a Golden Jubilee year for us—we will celebrate by publishing a Golden Jubilee Anniversary issue in May. In this Anniversary issue we will look backwards just long enough to review some of the outstanding publishing accomplishments of the AMERICAN FRUIT GROWER, over the past 50 years. The remainder of the issue will be devoted to a look ahead—to the new era that is opening up for the fruit industry, for the growers, packers and shippers and for our advertisers who furnish this billion dollar industry with the supplies and equipment that such an important nationwide business constantly requires.

We want our friends, both readers and advertisers, to share in this celebration. It is, we believe, important to all of us, because for 50 years the AMERICAN FRUIT GROWER has been, and is, the only national fruit magazine. With a circulation of more than 150,000, it is the one publication that

adequately and completely covers the fruit field.

We take no little pride in the fact that for 50 years the readers of the AMERICAN FRUIT GROWER have been our friends and that their problems have been our problems. Our place in this industry and our long friendship with men and women in this industry is but natural, for so highly specialized is fruit growing that the fruit grower must have a publication devoted entirely to the problems of that industry. Fruit growers cannot secure adequate editorial advice on fruit growing needs from the general farm paper, be that paper state, sectional or national in scope. The major subjects dealt with in the general farm press—dairying, grain-raising, cattle breeding and other kindred subjects—are of minor importance to the commercial orchardist. It is for these reasons, then, that through all these years the fruit grower has looked upon the AMERICAN FRUIT GROWER as guide, mentor and friend.

And the advertisers served by the AMERICAN FRUIT GROWER are also its

friends. Indeed, so unique is the AMERICAN FRUIT GROWER's position in its particular field that we can well say of the publication, of its readers and of its advertisers, as was said of Athos, Porthos and Aramis: "All for one, and one for all."

Fruit growers of America enjoy golden harvests every day in every month of the year. And, through the AMERICAN FRUIT GROWER, advertisers are able to reach this valuable year-round market with a minimum of effort and expense.

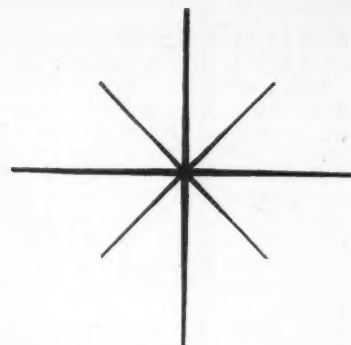
Recovery is under way. Prices for fruit harvests are already rising. Better times are returning. It is fitting then, that the AMERICAN FRUIT GROWER celebrate these golden harvests with a Golden Jubilee celebration of its 50th anniversary.

Month by month, between now and May, 1934, details of the Golden Jubilee Anniversary issue will be announced.

In the meantime, we want both readers and advertisers to prepare to celebrate with us.



STATE HORTICULTURAL NEWS



West Virginia Horticultural Notes

By CARROLL R. MILLER, Secretary
W. Va. Horticultural Society

IN the hope, born of acute need, that state societies can get together on their common problems, and together exert sufficient force to achieve at least a part of their pressing needs, I set down here some things in which West Virginia Society has been particularly active (but not particularly successful) the past year.

We have accomplished but little; not because we have not worked hard, but after all, when national needs are concerned, we have only two senators of the 48; only six congressmen among 400-odd. In our lone case, both fulcrum and lever are too small.

But twenty states, at least, have fairly-active to vigorous horticultural societies. That means 40 senators; almost half the congressmen. (Still considering the legislative phase; but the other phases are almost parallel.) So I list the things we have done; things we are trying to do; some things we should have done and haven't.

Our biggest battle has been on freight rates. This is understandable. We are being choked out of markets naturally ours by proximity and consumer preference, by high freight charges. It costs, for instance, 666 bushels of U.S. One apples to lay a carload of 600 bushels down in New Orleans, at present prices to the grower. The railroads in a general revision of rates which was supposed to have been downward, in 1928, actually raised the rates by 1 cent to 11 cents per cwt. to twenty of the principal Southern terminal markets. Increasingly, we are finding that apple buyers in these terminals will not take the risk on these piled-up charges. They deal in something else requiring less capital and with less loss-risk.

Well, we've done darn near everything except arson to get reasonable rates. With Virginia Hort's. (bless their willing hearts) almost \$10,000 has been spent on hearings before Interstate Commerce Commission. We have held hearings to which railroad officials were invited—and some came. We have attended all kind and manner of hearings, traffic conferences and such, where we thought presentation of our difficulties might help our cause: have dogged our senators and representatives continuously. We had awfully poor luck.

Then we began a systematic attempt to bring in organized trucking services, to move out the crop. This had the biggest effect. Railroads granted a 25 percent cut to nearby Southern points where truck competition was particularly dangerous; and 12½ percent reduction to slightly more Southern points where trucking was not quite so universal. But to the farther South, the 1928-boosted rates still hold. It is not only the South. It is the freight to points west of us, and north of us, that is hemming us in; narrowing our sales area; cutting our demand.

Finally, and in desperation, we tried to get the I. C. C. soundly spanked by Congress.

We reasoned by letters with all the senators and congressmen we thought would be interested; noted that the high rates were being preserved only through I. C. C., in final analysis. Without such a government rate-setting body behind which to hide, the railroads would have been forced long since by open competition to bring their rates down to compare with the new levels of prices and costs. Further, I. C. C. had been founded by Congress to serve The People, not the railroads, we pointed out painstakingly. They are now serving the railroads, not the general public. The batteries of high-salaried railroad attorneys continuously pouring smooth railroad oil into the I. C. C.'s ears have been irresistible, effective. I. C. C. weighs all things now, not as to effect on the public, but as to effect on the railroads. So we besought the hon. congressmen to re-create I. C. C.; to make sure in the new charter that the public be served, not damned.

Pardon us while we shrug our shoulders—the net result of it all. Yet we have fairness, reason and right on our side.

Now we all of us want the same thing in this case, for one. Let's get together!

The chairman of our Rate Committee, Robert Bly, Charles Town, W. Va., has been trying hard to get some uniformity in the tangled and confusing truck regulations and licensing by the many states, south of Mason-Dixon Line, particularly. A grower's truck, for instance, loaded with his own fruit, must pay licenses and fees in some states that the peddler-trucker with a "for hire" license need not pay; which throws the advantage with the peddler-trucker. And if you want to know a lot more about the confusion worse confounded caused by state lines and the 48 different sets of truck-and-motor regulations, write Bob about it.

What we need, of course, is nation-wide uniformity in these regulations. To persist in the present helter-skelter plan is the same as erecting tariff walls around each state. Exactly. So let's try to get together on that.

We tried, too, for "per diem" inspection;—having a U.S.-state inspector stationed continuously at packing houses large enough to want this; with the grower paying the state a weekly wage plus small charge per car inspected, for the inspector; instead of paying a fixed sum, \$4, for each car inspected. Pennsylvania growers like it. But we couldn't swing that either—not this year.

And we worked on legislation as it shaped up so fast in Washington early this year; and in our legislature; on a code, or The Code; on Market News Service; on sales-price levels, in a desperate attempt to bolster some of the weaker selling brethren's knees against the time they should become terror-stricken with two carloads on track and unsold. We did, or tried to do, a lot of things like these.

But we didn't get very far with most of them. The one Society just doesn't "carry the authority". But twenty societies, in twenty states, with forty senators—oh, Boy! Let's get together, and accomplish something! What are the rest of you trying to accomplish? And how can we help you?

Maryland State Horticultural Society News

By A. F. VIERHELLER, Secretary

OUR congratulations to the "newer, bigger and better American Fruit Grower." There was a note of confidence and encouragement for the grower, and right now we need both. It is good to see the section set aside for state horticultural societies. We are trying to go along and the cooperation of our members shows that there's plenty of fight left in the fruit growers in spite of many heavy odds. Our growers suffered heavy loss from storm damage in August. Eastern Shore growers had their peach crop about harvested, but the apple trees lost considerable fruit and leaves were rather badly torn. The peach growers in Central and Western Maryland lost nearly all of the Elberta and Hale crop by drop and rot, following the storm, both in the orchard and in transit. Our apple harvest yielded well-colored fruit, but size and quality were spotty in the various orchards.

No mention has been made of the Eastern Fruit Growers' Council, composed of the state horticultural societies of the states east of the Missouri River. This Council has done fine work in its short time of existence and at last the Eastern and Mid-western fruit growers are working closely together. Senator H. F. Byrd is president, and W. S. Campfield is secretary-treasurer of the Council. They make excellent officers.

We take exception to the idea that Virginia and West Virginia had all of the aphid, scab and moth. We had our share, but our growers did valiant work in trying to control those plagues.

Peach growers have gassed their trees for borer and are planning a leaf curl spray in November or December and are also thinking about next season's pruning and spraying to get the jump on brown rot and apple rosy aphid, scab and codling moth. Also it appears that there will be better jobs of thinning, fertilizing, and soil management next year and the slaughter of weak trees and trees on poor land will continue. Replant trees will be set in good land.

We hope to contribute some news of Maryland fruit growers from time to time. The life of a combined Horticultural Society Secretary and Extension Horticulturist is a busy one, these days, with records, plans, reports, field work, hearings and plans for annual meetings.

Iowa Horticultural News

By R. S. HERRICK, Secretary
Iowa State Horticultural Society

IN spite of a severe summer drouth, Iowa orchardists are picking some very fine apples this fall. Where proper sprays and cultivation have been given, extra quality is being harvested.

A severe westerly wind on September 25

did a lot of damage over the state, blowing off as high as 50% of unpicked apples.

Due to wind and codling moth worms, second grade apples have been glutting many of our markets and selling for low prices. In spite of this, growers have been receiving around \$1.50 to \$1.75, and in one case \$1.95 per bushel without package, for No. 1 Jonathans. No. 1 Delicious have been bringing even a higher price. Sales for these higher priced apples have been slow, but the growers believe that demand will increase as time goes on.

Our State Chemist reports that on tests so far made for arsenic found in the spray residue have not in any case exceeded the tolerance. A good many orchardists did not apply the late sprays and it is believed that the rains have taken care of the problem very nicely. This program, however, has caused a great many wormy apples and it is believed our orchardists will spray later next year for the control of the codling moth worms. There is no doubt that we had a third brood of codling moth worms in many parts of Iowa this year.

We are glad to report that the 68th Annual Convention of the Iowa State Horticultural Society and affiliated societies will hold their annual conventions at Ames, November 16, 17 and 18. We are very happy that Mr. John T. Bregger, Editor in Chief of the American Fruit Grower will be on the program with the subject "Styles Change in Fruit Growing." We are also glad to report that one of the Associate Editors, Professor T. J. Talbert of Columbia, Missouri, will also be on the program.

The fruit growers, vegetable growers, florists, beekeepers, Peony & Iris Society, nurserymen, and conference of Federated Garden Clubs of Iowa will hold their meetings in connection with the Horticultural Society. In connection with these meetings will be held the Little Mid-West Horticultural Exposition, staged by the Horticultural Students of Iowa State College.

Ohio Horticultural Society News

By F. H. Beach, Secretary

FAVORED with excellent weather, the northern meeting of the Ohio Hort. society, held at Red Ridge Orchard, Smithfield, attracted over 400 folks. W. J. Weldon had his orchard in splendid condition. The packing house, containing a large capacity grading and sizing machine, is able to take care of 1,600 bushels daily if necessary. The storage of inter-locking, hollow tile construction, was insulated with cork on walls and ceilings to facilitate the initial cooling of such varieties as Jonathan and Delicious. An ice bunker of five tons capacity, equipped with fan and blow pipe is used to bring down temperatures of warm fruit.

The orchard showed considerable attention to topworking by grafting and budding. On the entire 75-acres of orchard, there is not a single tree which is not true to name. A cutaway off-set disk is used in tearing up the sod beneath the branches wherever the grass gets tough and where trees begin to slacken in their growth. Its use prevents excessive run-off of rainfall, reduces the competition between grass and tree roots, and makes growth conditions most favorable. The orchard has been carefully thinned and many trees have been gone over more than once to make them produce the greatest percent possible of U. S. No. 1 fruit 2½ inches and up.

Following cafeteria lunch served in the storage, the speaking program took place in the packing house, called to order by Pres. C. E. Dutton. After F. P. Taylor, County Agent, had welcomed the fruit growers, Mr. Selday told of his experiences in developing

Page 18

Red Ridge Orchard. T. H. Parks, Extension Entomologist, Ohio State University, discussed the spray residue problem. The new Standardization Law was outlined by E. A. Fleming, Chief, Ohio Bureau of Markets.

Fruit School

The annual fruit school will be held at Ohio State University from December 12 to 15 inclusive. Special features will be addresses by Dr. J. R. Magness, Washington, D. C., discussions and laboratory sessions on power sprayers, their construction and management. Dr. F. S. Howlett, Prof. J. H. Gourley, and other members of the residence staff will take part in this school which has proved of so much interest and profit to Ohio fruit growers in the past. Anyone interested can address Dr. J. H. Gourley, Dept. of Horticulture, Ohio State University, Columbus. Orchardists from Ohio or surrounding states are always welcome at this special meeting of fruit growers.

Michigan Horticultural Society News

By H. D. HOOTMAN, Secretary

THE 1933 annual meeting will be held December 5, 6 and 7 in the new Civic Auditorium Building at Grand Rapids. The facilities here provided are the best we have ever seen for holding a horticultural society meeting.

Joint exhibits with the Michigan Farm Equipment Association will be held in connection with the meeting this year. This means that there will be on display general farm equipment in addition to the exhibits of accessory industries connected with the fruit industry.

During the latter part of August and early September we had much warm weather which was favorable to the late development of codling moth. Consequently we have more late worms this year than was expected. The weather during the past three weeks has been most ideal for getting good color on apples; bright sunny days, cool nights and scattering rains. Most apples in Michigan were harvested by the 20th of October.

This year there have been more new air-cooled storages built in Michigan than usual. We have our trouble with varieties of the McIntosh season, or earlier, in keeping them satisfactorily in the air-cooled storage, but for Greening, Jonathan, Wagener, Baldwin, Spy and Steele Red, they have proved very satisfactory. The air-cooled storage makes it possible for many of our growers to keep truckers supplied with fruit during the winter marketing season.

Kansas State Horticultural Society News

By CHARLES A. SCOTT, Secretary

EARLY in September, Governor Alf M. Landon of Kansas visited the apple orchards of his own state. A group of apple growers and friends met him preceding luncheon at "The Big Red Apple," a famous lunch stand near Troy, where the menu featured apples in many forms.

Starting the tour at Roy Carter's orchard, the Governor saw Jonathans, Winesaps, and York Imperials almost without a blemish. Washing and grading was observed at W. R. Martin's packing shed.

The entire party was then whisked over and around the hills of Donaphin County into Dubach Brothers' orchard of Delicious, where a crew of over twenty were gathering the crop. The Governor, invited to lend a hand, demonstrated his ability as an "apple picker" by shedding his coat, strapping on a

picking bag, and climbing a ladder to go after them with both hands.

The extent of the orchards, the beauty of the landscape, including bends of the Missouri River, was visible from the hill tops and attracted the Governor's attention, together with orchards, vineyards, and fields of small fruits. Corn, wheat, clover, and alfalfa fields are common sights in Kansas, but a great expanse of fruit is quite unusual.

Stops were made at the Wathena and Blair Apple Growers' Association packing houses. The Governor followed the course of the apples from the time the orchard boxes were unloaded, through the washer and grader, until the packed baskets were loaded on cars. Thousands of bushels were being washed, graded, and packed in strictly modern, sanitary buildings under ideal working conditions.

The real treat of the day came late in the afternoon after reaching the Rullman Schoenfelder orchard, consisting of 60 acres of apples, 16 years from setting, and of four varieties: Jonathans, Delicious, York Imperials, and Ben Davis. The Jonathans had graded better than 75 per cent U. S. No. 1. The other varieties were loaded to the breaking point with fruit of the finest quality. Many of the York Imperial trees, in spite of the support of props, were breaking under their load. Previously informed there was only a 60 per cent crop in N. E. Kansas, the Governor remarked: "I've never before seen apples growing on scantlings. If this is a 60 per cent crop, where is there room for the other 40 per cent?"

A round of the apple growing districts of the state during the past six weeks reveals that the apple growers have a common enemy to fight in the future, and that is the codling moth. The codling moth has inflicted greater injury to the apple growers in Kansas during the past season than ever before. The number of pupae that will live over winter in the packing house, sheds and other buildings and orchards will be far greater than usual, hence the necessity of laying some very definite and well organized plan for next year's warfare.

The annual meeting of the Kansas State Horticultural Society will be held at Wathena, December 6 and 7. The subjects scheduled for consideration are the control of the codling moth, spray residue removal and small fruit growing.



York Imperial trees in Rullman-Schoenfelder orchard near Blair, Kansas. The crop is estimated at 50 bushels per tree

Minnesota Fruit News

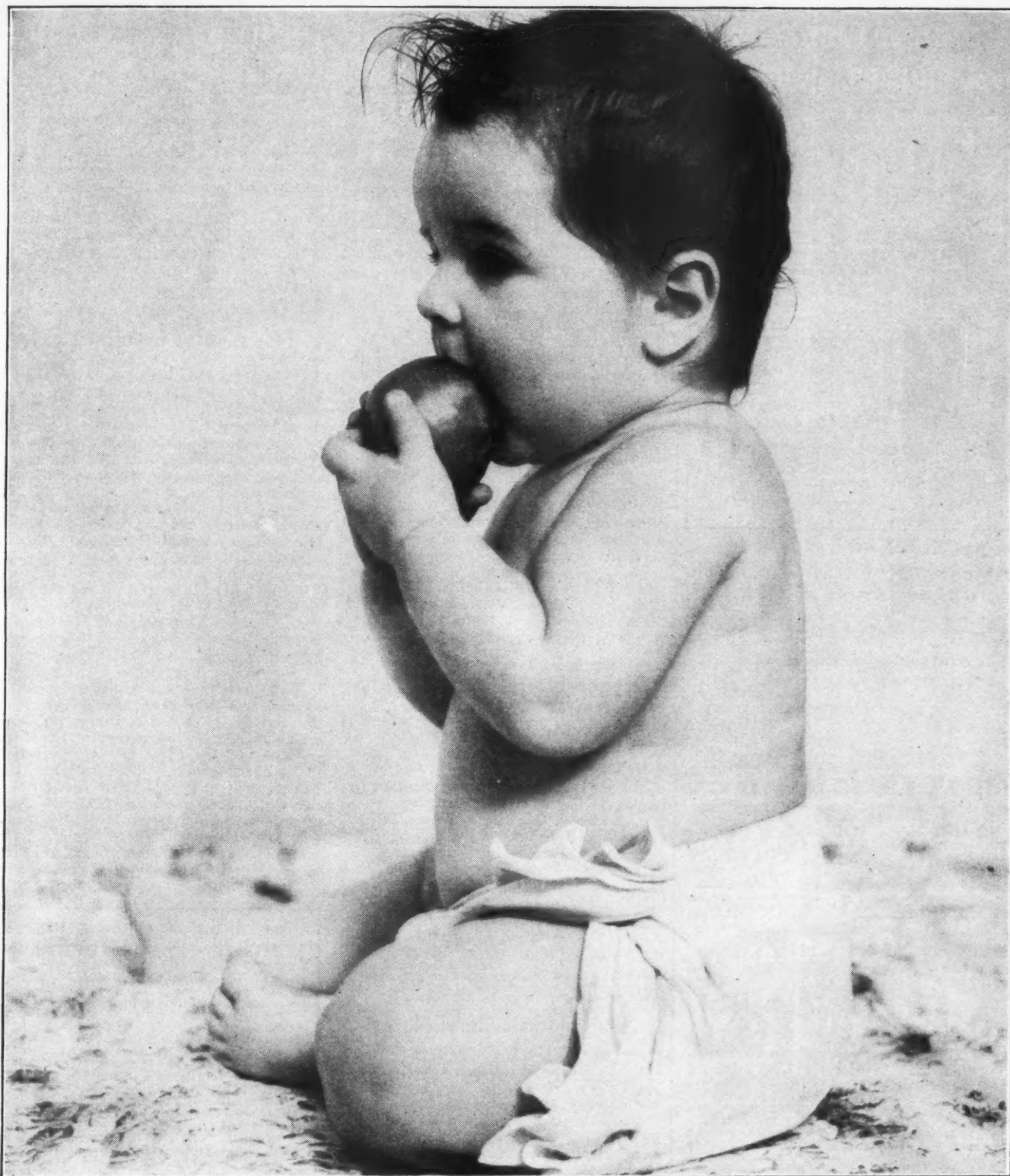
By J. D. WINTER, Secretary
Minn. Fruit Growers' Ass'n.

THE apple crop in southeastern Minnesota moved readily but at prices that were lower than those prevailing last year. No. 1 Delicious brought \$2.00 to \$2.50 at the orchard. In properly sprayed orchards the apples were clean and well finished, with excellent color. Scab gave some trouble this year where a pre-pink spray was omitted, and second brood codling moth was more abundant than usual.

(Continued on page 20)

AMERICAN FRUIT GROWER

NOVEMBER, 1933



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Congratulations to Harry J. Devlin, of Murrysville, Pennsylvania! He wins last month's Picture Prize of \$5.00 with his title, "Health Within Reach." And here's another chance for a lucky reader to win the prize. For the best title submitted for the above picture the AMERICAN FRUIT GROWER will pay \$5.00. Suggest as many titles as you wish, but they must reach us on or before November 20. The winner will be announced in the December issue.

NOVEMBER, 1933

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The new variety Haralson, originated by the Minnesota Fruit Breeding Farm, is finding much favor among growers who are looking for a hardy winter apple. It is just coming into production and sold readily this year, making a nice profit for the grower. The tree comes into bearing quickly and yields heavily.

The raspberry crop was much below normal due to the prolonged drouth. The new variety Chief, also a Minnesota production, attracted much favorable comment from a number of experienced growers this year, it being the first year that any considerable acreage has been fruited. One grower in Southern Minnesota with a large acreage of Chief said it was ten days earlier and picked a longer season than his Latham, and was slow to produce "whiskers" after picking. This variety made an exceptionally good record in northern Minnesota this year.

The sixty-seventh annual meeting of the Minnesota State Horticultural Society will be held at Red Wing on November 13-15. The fruit program is scheduled for the last day of this meeting with Dr. R. H. Roberts, Professor of Horticulture University of Wisconsin, and Professor W. H. Alderman, Chief of the Division of Horticulture University of Minnesota, among the speakers for that day. The program will include a discussion of commercial orcharding, irrigation for small fruits, marketing problems, and a round table discussion of new fruits. The afternoon program will be a joint session with the Minnesota Fruit Growers Association. The annual banquet will be on the evening of November 14.

Oregon Horticultural Society Notes

By O. T. McWHORTER, Secretary

THE Oregon State Horticultural Society will hold its 1933 annual meeting at Medford December 13 and 14. This year's session will emphasize such economic questions as marketing agreements functioning under the Agricultural Adjustment Act, crop financing, outlook for the pear industry, recent findings relating to the use of irrigation water, and other information of interest to the fruit grower. The president of the Oregon State Horticultural Society is E. W. Carlton, manager of the Redskin Orchards, Central Point.

Idaho Horticultural Notes

By W. H. WICKS, Secretary
Idaho State Hort. Assn.

ON July 27 the Southern Idaho Traffic Shippers Association assumed control of the spray residue laboratories, which heretofore have been maintained by the Idaho Department of Agriculture. These laboratories were established and conducted by the State Department of Agriculture for the benefit of the fruit industry until such time as the fruit industry could assume full charge, with the hope that the said laboratories could be operated by growers and shippers themselves more economically than by the State Department.

Details of establishing one major laboratory with the possibility of at least one branch laboratory are now being worked out by the Traffic Association in anticipation of the movement of the apple crop around the first part of September. The State Department of Agriculture has pledged its fullest cooperation and will help in this movement whenever necessary.

Arkansas Fruit Notes

By THOS. ROTHROCK, Secretary
Arkansas State Hort. Soc.

WE have had for several years a hard fight against the codling moth. This year, those orchardists who sprayed thoroughly and timely, had our deadly enemy fairly well whipped up to August first. Upon the advice of federal agencies, these same orchardists changed to calcium arsenate for the last three cover sprays but by doing so they burned some of their foliage and fruit and let the worms chew up part of their crop.

Some of the washed apples are not keeping so well in storage. This is especially true of such varieties as Jonathan and Grimes Golden.

News Notes from Missouri

THE 1933 Summer Meeting of the Missouri State Horticultural Society was held in the orchard of M. E. Leming, near Cape Gerard, Missouri. The forenoon was spent in an inspection trip of the peach and apple orchards of Mr. Leming. One of the finest and most abundant peach crops of several years was ripening.

In the apple orchards, the growers were able to see both old and young apple trees bearing heavy crops of fine clean fruit of standard varieties. The orchards were located on typical Mississippi and Missouri River loess soils. The trees showed vigor and good orchard culture.

At the noon hour, Mr. and Mrs. Leming served all in attendance with a delicious and more than liberal lunch. This was followed by a couple of hours devoted to the discussion of timely questions dealing with sprays, spraying, spray residue, plant nutrition, insect and disease control and other problems.

One of the most interesting features of the program was the active and helpful participation of the producers in discussing and raising questions of importance to fruit producers. Agricultural Experiment Station workers of both Illinois and Missouri were in attendance and entered into the discussions. The presiding officer was Patterson Bain, Jr., Pres. of the Missouri State Horticultural Society. —T. J. Talbert.

CALENDAR OF 1933 FRUIT MEETINGS AND EXHIBITS

- Nov. 9-10—Wisconsin State Horticultural Society at Madison, Wis.
- Nov. 13-15—Minnesota State Horticultural Society at Red Wing, Minn.
- Nov. 16-18—Iowa State Horticultural Society at Ames, Iowa.
- Nov. 21—Central Illinois Horticultural Society at Peoria, Ill.
- Nov. 23-24—Northern Illinois Horticultural Society at Moline, Ill.
- Dec. 4-6—Washington State Horticultural Association at Yakima, Wash.
- Dec. 5-7—Michigan State Horticultural Society at Grand Rapids, Mich.
- Dec. 5-7—Virginia State Horticultural Society at Luray, Va.
- Dec. 6-7—Kansas State Horticultural Society at Wathena, Kan.
- Dec. 8-9—Western Nut Growers' Association at McMinnville, Ore.
- Dec. 13-14—New Jersey State Horticultural Society at Camden, N. J.
- Dec. 13-14—Oregon State Horticultural Society at Medford, Ore.
- Dec. 13-14—California Fruit Growers' Convention at Modesto, Calif.
- Dec. 13-15—Illinois State Horticultural Society at Springfield, Ill.
- Dec. 19-20—Peninsula Horticultural Society at Berlin, Md.
- Dec. 19-20—Connecticut Pomological Society at Hartford, Conn.
- Dec. 28-30—American Society for Horticultural Science, Boston, Mass.

A Thanksgiving Recipe

From Mary Lee Adams

THANKSGIVING, like prosperity, is just around the corner. It will reassure us as does the rainbow after storm. A hearty Thanksgiving will brighten many a cloudy sky. We have so much still to be thankful for. If our blessings include turkey and cranberry sauce (or even a turkey substitute like chicken or pork) the seasonable cranberry will give a true Thanksgiving flavor to the meal.

Cranberry Salad

Here is a splendid recipe I have obtained for Cranberry Salad. Use it. Eat it. Give thanks.

One cup of thick sweetened cranberry sauce. One-half cup of fine-chopped celery. One-half cup shredded pineapple—canned. One-half cup chopped nut meats. Juice of half a lemon. One package lemon gelatin. One cup boiling water. One cup cold water.

Dissolve gelatin in boiling water, add cold water. Set aside to cool. When somewhat thickened, stir in all the other ingredients. Pour into molds, chill until firm. Serve on a lettuce leaf with mayonnaise or cream dressing.

Salad Makers' Hints

The joy of salad making is that while a good recipe brings good results, inability to furnish all ingredients called for, need not hinder the resourceful housewife. Only a few real essentials go into any particular salad. Satisfactory substitutes will suggest themselves. If molds are kept full of cold water until ready to use, the filling is less likely to stick when turned out. A good way to loosen a jellied filling is to wrap the mold in a cloth wrung out of very hot water. The contents are then more likely to turn out in unbroken shape.

Some Warm Babies

Ever since Adam and Eve started Cain and Abel on their careers of piety and crime, children have been the liveliest concern of their parents. Tiny, helpless creatures as babies are, we feel that nothing short of inspired wisdom can bring them safely through the years of childhood.

Take courage, mothers! When we read of the things children have endured through the ages, we should feel greatly reassured. It almost seems as if nothing short of knocking the delicate creatures on the head before they are old enough to protest, could prevent their reaching healthy maturity.

Grandmother's generation was a sturdy one, yet think what the fondest mothers did to Grandmother as a baby.

NOVEMBER, 1933

The famous "Godey's Ladies' Book," of 70 years ago, quotes "The following sensible advice from Hall's Journal of Health."—"Dress children warmly. Woolen flannel next their person during the whole year. It is an ignorant barbarism that allows children to have bare arms and legs and feet even in summer. The circulation should be invited to the extremities: Warmth does that; cold repels it. It is at the hands and feet that we begin to die."

There's a cheery idea for you. Good heavens! Here's winter hard upon us and our fingers and toes have already tingled more than once! "It is at the hands and feet that we begin to die." When we had chilblains, it did not occur to us that we were beginning to die. We use to say "Cold hands, warm heart." What would Dr. Hall think of the ignorantly healthy young children who disport themselves throughout the summer in scarcely perceptible sun suits, in full view of that smiling "ignorant barbarian" their modern mother?

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

OF AMERICAN FRUIT GROWER published monthly at Cleveland, Ohio, for October 1, 1933.
STATE OF OHIO
COUNTY OF CUYAHOGA

Before me, a Notary Public in and for the State and county aforesaid, personally appeared E. G. K. Meister, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the AMERICAN FRUIT GROWER and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher, American Fruit Grower Publishing Company, 1370 Ontario St., Cleveland, Ohio; Editor, John T. Bregger, 1370 Ontario St., Cleveland, Ohio; Managing Editor, Dean Halliday, 1370 Ontario St., Cleveland, Ohio; Business Manager, E. G. K. Meister, 1370 Ontario St., Cleveland, Ohio.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereafter the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)
American Fruit Grower Publishing Company, 1370 Ontario St., Cleveland, Ohio; E. G. K. Meister, 1370 Ontario St., Cleveland, Ohio; R. B. Campbell, Richmond, Virginia; Mary Lee Adams, Greenwood, Virginia.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is

(This information is required from daily publications only.)

E. G. K. MEISTER,

Business Manager.

Sworn to and subscribed before me this 22nd day of September, 1933.

(Seal)

Nora I. Young, Notary Public.

(My commission expires March 19, 1936.)

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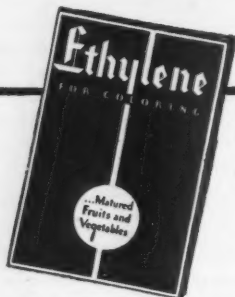
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Timely Hints for November

Fall fertilization of fruit trees where soil leaching is not a serious factor is recommended by several horticultural authorities. This gives an opportunity for snow water to take soluble nitrates into the soil where they can be taken up by the roots early in the spring when most needed by the trees. Spring applications are often made too late for best utilization, particularly when rainfall is light. The more slowly soluble forms of nitrogen fertilizers such as cyanamid are more often applied in the fall, while the quickly soluble forms like nitrate of soda are applied in the spring.

Old and neglected orchards, if of profitable varieties, may sometimes be brought back into production by heavy pruning and good soil management. Such an orchard should usually be given a good application of barnyard manure and plowed in the fall. This initial plowing should not be made too deep, though the depth can be increased with each successive plowing.

Experiments in England and America have shown that some varieties of apples will take on additional red color after being removed from the trees, by exposing to sunlight for about ten days. For such treatment it is desirable to keep the temperature as low as possible, particularly during most of the exposure period, so that the fruit does not ripen or soften too rapidly.

Fall planting of fruit trees, in regions where advisable, should be done as soon as dormant nursery stock can be obtained. The same careful packing of soil around the roots of young trees is necessary as in spring planting, because of occasional dry windy days in autumn, which tend to dry them out and perhaps prove fatal.

Peach Leaf Curl can be controlled by fall spraying with dry or liquid lime sulphur, or 2-4-50 bordeaux mixture, when the temperature is above 45°. The usual spring application is often applied too late or not at all, due to the spring rush of work, or muddy soil conditions, in the light of which fall spraying after leaf fall has its advantages.

During apple harvest, make counts of all varieties to determine the percentage of wormy fruit. If this figure runs as high as five per cent or above, it will probably be worth while to band these trees for codling moth control next season.

When you go "nutting" this month, look for improved types in walnuts, butternuts, and hickories. There are great opportunities for finding superior nut varieties just as there are in fruits.

Prune a sample tree or two of each variety before leaf fall. These trees will serve as models during the winter and spring, when the bareness of leafless trees will scare some pruners from doing a good job.

In starting the pruning program, the oldest trees should usually be pruned first. These are less apt to be injured by cold winter weather following fall pruning.

Store plenty of fruit for winter use. For every member of the farm family there is no better food to break the monotony of heavy winter meals and to promote health.

In control of gophers, it is usually the best rule to use poison in the fall and trap in the spring before the breeding season.

World's Largest Produce Mart

(Continued from page 6)

paid management and therefore must charge a fee. They claim that the reputation the mart has gained is due mostly to the orderliness with which business is conducted and the perfect product the inspectors demand.

The Fruit Belt Farmers' Union of southwestern Michigan, recently formed, is working for four improvements on the mart: 1. To install amplifiers to announce market quotations from Chicago, Detroit, St. Louis, St. Paul, Milwaukee, Indianapolis, New York, and other cities, so that large buyers cannot deceive growers on prices; 2. To place men near the gates to advise minimum prices on produce and nullify price variation; 3. To obtain a more even day-to-day selling, which would mean a higher price average; 4. To move the two retail selling lanes to the old mart, three blocks away; 5. To combat the "bear" influence certain large buyers create, and promote a "bull" influence by obtaining an increase in the number of buyers, and by gaining grower control of the mart. In explaining point 3, it will be understood that the heavy selling of Sundays, Thursdays, and holidays, which for some reason have become the busiest days, results in comparatively low prices; and that if an agreement could be arranged through the Union to obtain a better average selling, the growers would receive more for their produce.

The demand for healthy, tasty foods that add no weight, is making fruits and vegetables more popular year by year. And with road, transportation and trucking improvements, this type of mart will gradually replace, wherever possible, the old methods of buying on the tree or vine; of purchasing stock and shipping to market f. o. b.; of usual terms, joint account, and commission methods of buying. Farmer organizations and rural communities would do well to consider the establishment of such a mart, for it provides the quickest, easiest and most convenient method of selling highly perishable produce.

A Tribute to the Pecan

ABORIGINE and modern alike have prized the truly American pecan, as both food and medicine, fostering health and strength, likeable alike in every month of the calendar, fondly fit for eating, from day to day.

Royal cousin of the hickory, the pecan tree has played its proper part in the onward march of the civilization of the nation. The pecan nut is a choice creation, its kernel a high commander of all monitor-armored fruits.

The new paper-shell pecan is a super-gift from the helpful hand of scientific agriculture, adding to the economic importance and progressive popularity of this wonderful forest-orchard nut tree, a princely property where to grow it is wise.—Jewell Mayes, Missouri.

AMERICAN FRUIT GROWER — — — — — — — — OPPORTUNITY ADS

A PROFITABLE HABIT

Read these ads each month. Answer those that interest you. It's a profitable habit. You may do business with our advertisers with full confidence of a square deal. Use an ad yourself wherever you have something to sell or want to buy something. Send your ad now; it costs only 15 cents a word. Be sure to count name and address. Each initial or whole number is a word. Our advertisers say it pays handsomely.

**Only 15c a Word
CASH-WITH-ORDER**

DISPLAY-CLASSIFIED ADS

are permitted in this section. These are regular display style advertisements or else illustrated classified advertisements. Rate: \$1.35 per agate line or \$18.90 per inch except display advertisements of poultry, baby chicks, eggs, poultry equipment and supplies, pigeons, pet stock, fur-bearing animals. \$1.15 per agate line or \$16.10 per inch. Minimum size, 5 lines. Display-classified ads get extra attention. Send yours today.

ADDRESS: AMERICAN FRUIT GROWER, 1370 Ontario Street, Cleveland, Ohio

BABY CHICKS

250,000 HAYES CHICKS WEEKLY—20 VARIETIES—Postpaid. Heavy Assorted, \$3.95 per 100. Catalog free explaining our guarantee against loss. HAYES BROS. HATCHERY, DECATUR, ILLINOIS.

PEDIGREED BLOODTESTED R.O.P. BREEDERS with egg records, 200 up, produce our strong, husky chicks. Write for new low prices. Scheer's Electric Chickeries, Inc., Evansville, Indiana.

BEEES

BEEKEEPERS SHOULD BE YOUR BEST CUSTOMERS. Rates 5c per word. Sample copy free. Send 10c stamps for three months trial subscription. Beekeeping is pleasant and profitable. The Beekeepers Item, Box 838, San Antonio, Texas.

CIGARS

50 HAND MADE CIGARS. HAVANA, DOMESTIC Blend, Long Filler, \$1.50 Prepaid. A. Simpson, 1014 East 4th Street, Jacksonville, Florida.

ELECTRICAL SUPPLIES

SPECIAL BARGAINS SLIGHTLY USED ALTERNATING and Director Current generators. 1/2 horse alternating Motors, \$12.75. Many others. ELECTRICAL SUPPLIES CO., Dept. 42, 1885 Milwaukee Ave., Chicago, Ill.

HOSIERY

LADIES' FULL FASHIONED HOSIERY, FIRST Quality, Guaranteed, 3 pairs prepaid for only \$1.25. State color and size. L. S. Sales Company, Asheboro, N. C.

IRRIGATING EQUIPMENT

NEW ADJUSTABLE TYPE ORCHARD SPRINKLER. Recently patented. Most economical use of water. Adapted to hillsides. Write for circular. C. N. Foster, Walla Walla, Wash.

NURSERY STOCK

EARLY BEARING PAPERSHELL PECANS, PEACHES, pears, figs, plums, berries, etc. New catalogue free. Bass Pecan Co., Lumberton, Miss.

FIVE VARIETIES FRAGRANT RED IRIS, LABELED and postpaid, thirty cents stamps. Floral Folder Free. A. B. Kathamier, Macedon, N. Y.

PERSONAL

EPILEPSY—EPILEPTICS! DETROIT LADY FINDS complete relief for husband. Specialists, home—abroad, failed. Nothing to sell. All letters answered. Mrs. Geo. Dempster, Apt. 28, 6900 Lafayette Blvd., West Detroit, Mich.

OLD AGE PENSION INFORMATION. ENCLOSE stamp. Judge Lehman, Humboldt, Kans.

RUBBER STAMPS

RUBBER STAMPS FOR MARKING BASKETS, ETC., with your name and grade. Circular free. Taylor Brothers, Cleveland, Ohio.

SQUABS



Free Squab Book

Make money breeding PR Royal WK Squabs, cream of poultry, getting double chicken prices. Raised in 4 weeks. Send four cents stamps for postage on new free big 68-p. book, how to breed and profit 1933. Our 33rd year.

Plymouth Rock Squab Co., 155 H. St., Melrose, Mass.

TOBACCO

DEWDROP—OLD TOBACCO—MELLOWED IN BULK. Guaranteed. Fancy smoking 5 pounds 75c; 10, \$1.40; 25, \$3.00. Handpicked chewing 5 pounds \$1.00; 10, \$1.75. Scraps 8c. Free! New Formula for home manufacturers. Saves 60%. Dewdrop Farms, Farmington, Kentucky.

GOLDEN CIGARETTE BURLEY, EXTRA MILD, 5 lbs. 75c. Cigarette Roller, papers free. Guaranteed Tobacco Company, LB233, Mayfield, Ky.

AGED CHEWING 12 POUNDS \$1.00; SMOKING 15. Flavoring. Riverview Farms, Hickman, Kentucky.

WANTED—FARM

WANT 10 TO 25 ACRES FRUIT OR CHICKEN FARM. Have lake property to trade balance on yearly contract in Northern Michigan close to good market. Elmus V. Tunis, Watervliet, Paw Paw Lake, Michigan.

WANTED—OLD GOLD

MONEY BY RETURN MAIL FOR OLD GOLD TEETH, Dental Bridges, Jewelry. Increased market price guaranteed. Old reliable firm; free information. Standard Gold Refining Company, 470 Lemcke Building, Indianapolis, Indiana.

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FRUIT POLLINATION

The Orchard is dependent upon the honey bee for pollination. Horticulture and Apiculture go hand in hand.

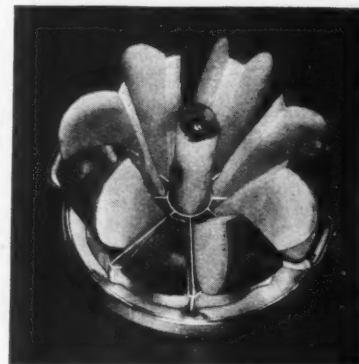
Beekeepers are providing scientifically packed orchard packages of bees. We will be glad to send the names of reliable shippers to any interested Orchardist. We have nothing to sell.

The Beekeepers Item is the official organ of all the larger and more aggressive beekeeping associations.

Trial subscription 3 months 10c.

The Beekeepers Item

P. O. Box 838, San Antonio, Texas



NEW

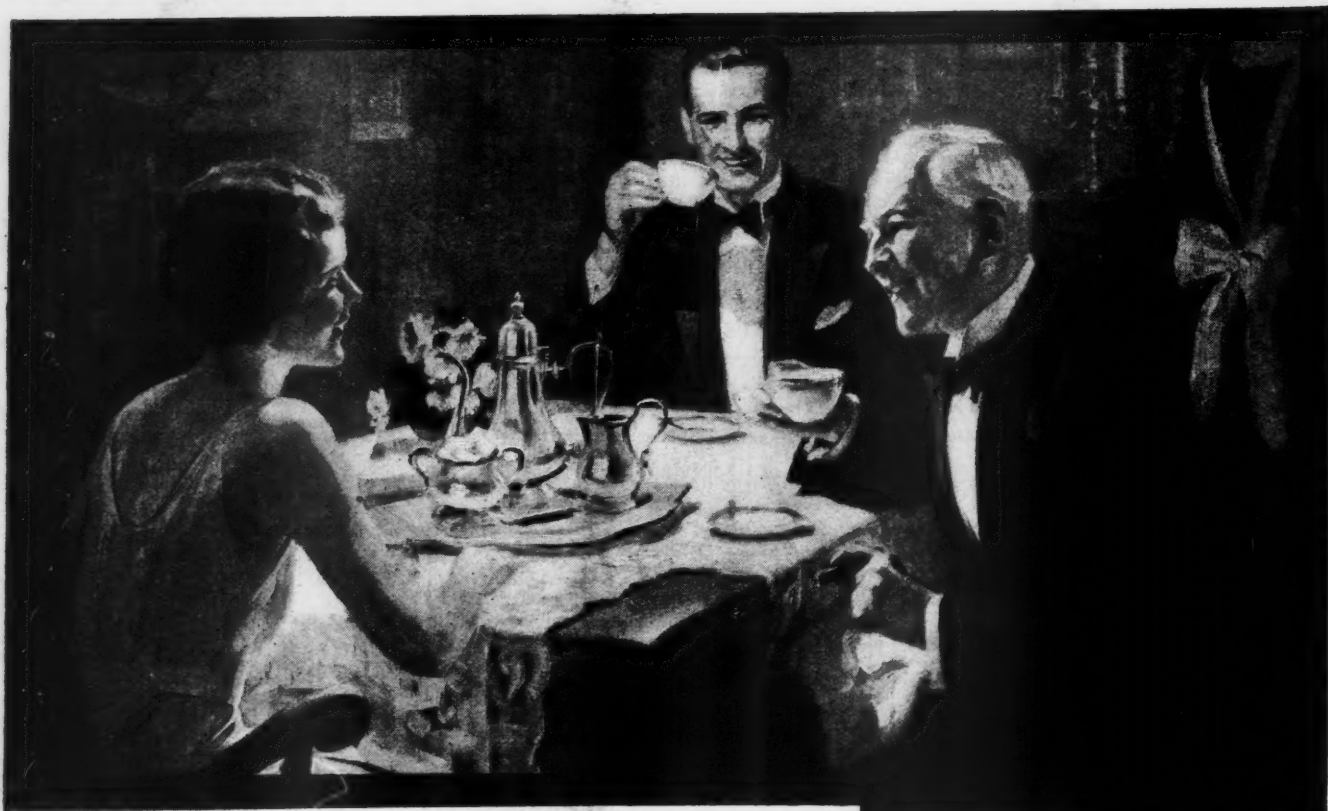
Apple and Pear Cutter

The perfect fruit sampler for growers. Let your customers and buyers sample your product. The perfect purchase or gift for fruit consumers.

Beautifully and Strongly Made
Quadruple Silver Plated
Will Last a Lifetime
\$2.25 postpaid

AMERICAN FRUIT GROWER
1308 Standard Bank Bldg., Cleveland, O.

• • Came the CLIMAX • •



IT HAD been a good dinner, but not especially eventful. . . Then came the critical moment. The arrival of the coffee. . . Its rich, mellow fragrance filled the room. The honored guest cocked a calculating, half-dubious eyebrow. Took a thoughtful sip. Then he beamed over his cup! Warmest cordiality replaced his tired politeness of a moment before.

She was not surprised. She had

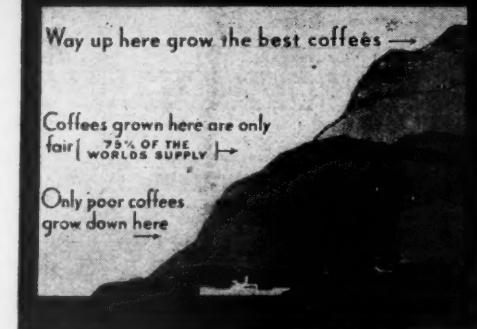
seen her coffee charm sterner men than he. But she was particularly pleased to see it happen tonight. *This* guest's good will meant so much to her husband. An important client of his firm.

Certainly, she thought, there is an added something in the flavor of Beech-Nut Coffee. Difficult to describe but unmistakable. Decidedly she was glad she had served Beech-Nut Coffee tonight!

Way up here grow the best coffees —

Coffees grown here are only fair (75% OF THE WORLD'S SUPPLY) —

Only poor coffees grow down here —



Beech - Nut Coffee really is unusual. Blended from precious mountain-grown varieties—very difficult-to-get—it has a richness and individual flavor all its own. Besides, it always reaches your kitchen absolutely fresh, because it's vacuum-packed.

Beech-Nut Coffee

RARE FLAVOR FROM TROPIC HEIGHTS



*Always fresh
Vacuum packed*

